Deby Bellman

Passive Supports for Textiles

The Textile Laboratory in the Division of Conservation at Harpers Ferry Center designs mounts for the display and storage of textiles in the national parks. Considered part of a conservation treatment, these mounts provide support enabling textiles to be handled safely and allow for easy exhibit rotation of fragile artifacts.

Several factors determine the type and design of the mounts. These include artifact condition, anticipated duration of the exhibit, method of display, and the desire to handle artifacts without causing stress or damage. With these considerations, the support is designed to meet the individual needs of the object. Whenever possible, a passive mounting technique is used so that excessive handling and stress to the object can be eliminated. Passive supports can perform dual functions; they may be used for display as well as for storage.

Due to the sensitive nature of textiles, passive supports may be necessary for both exhibit and storage. Constructing a support serving both purposes provides a cost saving for the parks. The textile's original intended use, design, and current condition are crucial in determining the method of the support to construct.

Inaugural coat worn by George Washington, Morristown National Historical Park. After treatment support board and interior supports.

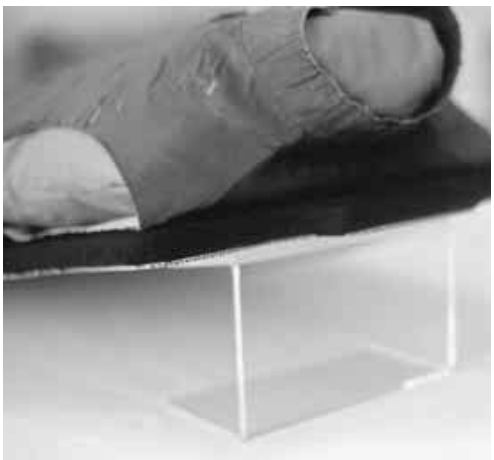
Support Types

There are many types of supports or mounts that can be used with textiles. However, with all methods of support, remember that the materials used for fabrication should be archival or inert. Flat textiles are best placed on archival boards covered with thin polyester batting and washed de-sized cotton fabric. This provides a surface that prevents the textile from sliding. Placing flat objects on padded boards also provides a safe and secure method of moving the object and eliminates direct handling. Not only does the board provide a base for safe storage, but it can also double as a mount. By placing the board on a slight angle, it can accommodate exhibit needs.

Costumes and period clothing are often essential parts of an exhibit or collection. Clothing in good condition can be placed on a custom made padded mannequin that supports all the elements of the garment. Care should be taken to rotate the costume off exhibit as a preventive conservation measure.

A garment in fragile condition requires a different approach. In some storage areas, clothing can be laid flat and the folds of the garment padded by inserting tissue into the folds to prevent the fabric from creasing. Because tissue tends to settle over time, it reduces the support and causes the textile to flatten and crease. Padded pillow supports are an alternative to tissue. They can be made from nylon fabric or polyester stockinette tubing filled with polyester batting, and placed in the garment simulating the shape of the object.

Morristown National Historical Park, New Jersey, has in its collection the inaugural garments belonging to George Washington. The garments, a silk coat, vest, and trousers, are in very fragile condition. The park requested the garments be prepared for long-term storage. However, they also wanted the option to exhibit any one of the



Inaugural vest worn by George Washington, Morristown National Historical Park. Acrylic support in place while artifact is on exhibit.

garments on special occasions for a short period of several weeks. The garments were too fragile to display on a mannequin or even to be handled frequently, so it was necessary to develop a passive system of mounting and storage that eliminated the need for direct handling. A base support was developed for each of the three pieces. This consisted of rigid archival boards cut close to the shape of the objects, each was slightly padded with polyester batting and covered with cotton fabric. An interior support pillow made from nylon fabric with polyester batting was placed into the clothing. The smooth surface of the nylon allows the pillow to slide in place without excess friction on the artifact and the batting will not collapse over time. While in storage, the clothing lays flat on the support. When the park wishes to display one of the garments, the board is placed on exhibit and raised for viewing by placing an acrylic wedge under the board to allow a viewing angle of 15 degrees.

A similar passive support was also utilized on a silk velvet vest in the collection of Andrew Johnson National Historic Site, Tennessee. Upon completion of the conservation treatment, a storage box was made to house the vest. An interior pillow support was fabricated from nylon fabric and polyester batting. This was placed in the vest to provide support for the velvet and prevent any creases from forming.

Textile conservators use a variety of techniques to support and display objects. When possible a passive support system is chosen. While providing a three-dimensional appearance to the object, passive mounting techniques also provide support to the object. This system allows easy exhibit rotation and eliminates the need for direct handling of fragile artifacts. Combining these two preventive conservation factors provides for both the exhibit and storage needs of the object.

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Photos courtesy the author.

Barbara Cumberland

Using Freeze-dried Animal Specimens in Exhibits

The use of freeze-dried animal specimens in National Park Service exhibits became popular in the late-1970s through the mid-1990s. Freeze-drying animal specimens for display purposes is an alternative to conventional taxidermy techniques or fabricating models out of synthetic materials. This article will deal with the use of freeze-dried specimens acquired for national park museum and visitor center exhibits as opposed to their use in scientific study collections in museums.

Conservators at the Harpers Ferry Center Division of Conservation are often called upon by park staff to answer questions about their museum collections. In the mid-1980s, the number of park inquiries about evidence of insect infestation and deterioration of freeze-dried specimens in exhibits increased.

Freeze-drying technology

The Smithsonian Institution popularized freeze-dry technology on natural history specimens for museums in the 1950s. It was a quick, effective technique for interpreting accurate animal forms. Freeze-drying converts water in the specimen from its frozen state directly to its gaseous state, a process called sublimation. Animals are first frozen into a desired position (held by wiring or propping) and then placed in a vacuum chamber at -15˚C to -20˚C. Ice crystals